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2000 Western Washington European Corn Borer Pheromone-Trap Survey

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Background

The European corn borer (ECB), *Ostrinia nubilalis* (Hübner) (Lepidoptera: Pyralidae), is an economic pest of many agricultural commodities and a destructive pest of many ornamental and native plants as well. Native to Europe, it was introduced into Eastern North America early this century, and currently is found in most states east of the Rocky Mountains. The risk of introduction of the pest into the western states has prompted regular pheromone-trap surveillance surveys by state agricultural agencies to prevent establishment of the here. The last Washington State Department of Agriculture (WSDA) survey for ECB was in 1989.

Project Objectives

1. Detect introduced populations of European corn borer in western Washington.

- Conduct pheromone-trap survey for European corn borer in as many higher-risk areas as resources allow.

2. Identify other any exotic species captured during survey.

- Evaluate non-target species attracted to pheromone-traps for any significant species present in survey area.

Project Methods and Materials

Traps used in this survey were standard 1-piece, "diamond" type sticky traps, similar to the Pherocon 2 trap, with a light stickum load of 1 gram per trap. Lures were gray septa, charged with Z11-14Ac & E11-14Ac @1:1, provided by the USDA APHIS Otis Methods Development Lab. The pheromone-traps, which attract moths from a wide area, were placed in various trees, randomly selected in an approximate grid pattern throughout the populated areas of counties along the I-5 corridor, from the Canadian border to the Columbia River. The survey interval was from mid-April until late-July or early-August, and traps were checked and serviced generally every 14 days.

A total of 265 traps were placed and monitored, with the number of traps in each county as listed in Table 1. Traps with specimens were

processed at the Olympia Entomology Lab, where selected unknown specimens were removed from the traps with Hemo-D citrus based solvent, minuten-pin mounted, and had genitalia extracted and slide mounted for identification. Slide mounts were prepared with Euparal mounting medium. Specimens that could not be identified were sent to USDA APHIS National Lepidoptera Identifier, Dr. Steven Passoa, at Columbus, Ohio for determination.

Project Results and Discussion

No European corn borer were captured in this survey.

Non-target microlepidoptera recorded in this survey totaled 3,477 specimens, comprised of 30 known species in 7 families. Two species collected are of note; one is a very abundant and widespread species (2,185 specimens recorded) that is yet to be identified, the other is tentatively identified as *Archips podana*, a European fruit tree pest known to be in B.C., Canada, but not found previously in the U.S.. A total of 183 suspect *A. podana* specimens were collected in Whatcom County, and will be reported separately if the species identification is confirmed.

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Table 1. Trap Placement by County

ECB Pheromone-trap Placement	
County	# Traps
Whatcom	30
Snohomish	23
Skagit	24
King	25
Pierce	40
Thurston	19
Lewis	23
Cowlitz	30
Clark	51
Total	265

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